

SENSORS FOR MRI APPLICATION

The Problem

The magnetic field strength required for MRI imaging demands the use of a superconducting magnet at cryogenic temperatures. A manufacturer of **MRI Scanning Machines** wanted to measure 2 mm displacements (distortions) of the magnetic structural elements and be able to resolve a few microns. The sensing environment is extreme, including:

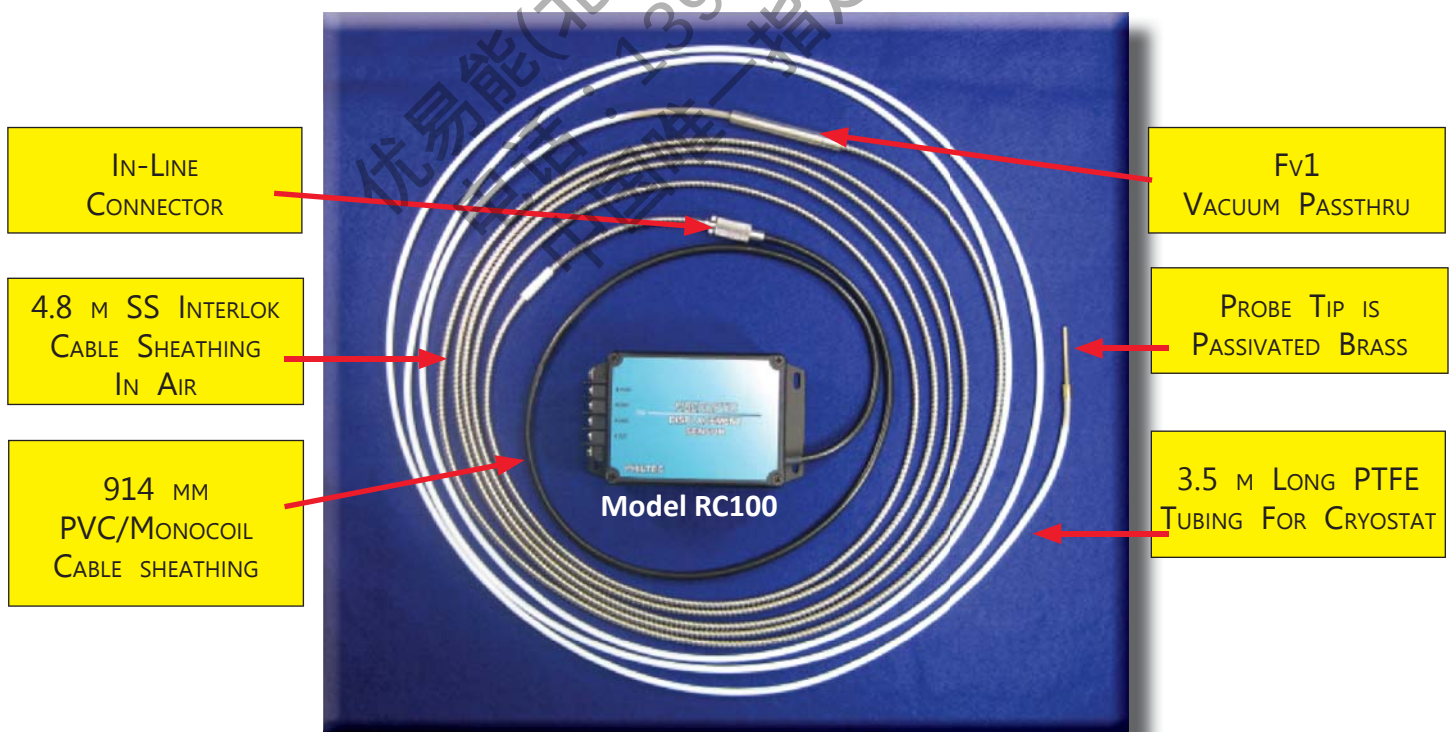
- Very High Magnetic Field
- Very High Voltage
- Immersion in Liquid Helium

The Sale

The customer purchased 14 cable assemblies 9.3 m long and seven model RC100 sensor amplifiers. The cable assemblies (one shown here) feature:

- Passivated Brass Sensor Tips
- PTFE Sheathed Fiber Optic Cables For Installation Inside the Cryostat
- A Vacuum Passthru Fitting model Fv1

Seven cable assemblies will be mounted on one side of the machine and seven on the other side. The amplifiers will be connected to the cable assemblies for readings one side at a time.



PHILTEC

Fiberoptic Sensors for the Measurement of Distance, Displacement and Vibration